

REMARKS

AMENDMENTS TO THE SPECIFICATION

5 It is believed that the amendment to paragraph 00022 makes no difference to the paragraph as previously amended, but, for the reasons given above, it is being re-presented to avoid any possibility of confusion.

10 It is believed that the amendment to paragraph 00023 is substantially equivalent to an amendment which was set out on page 2 of the Reply mailed January 27, 2003. However, it is not clear that the Examiner considered the allowability of this amendment, since the amendment was incorrectly referenced in the Reply mailed January 27, 2003, (as an amendment to page 10, lines 14-18 at one point and as an amendment to page 9, lines 12-14, at another point); and was not accompanied by a separate paper setting
15 out a marked-up version of the original paragraph. To a large extent, this amendment corresponds to the oils listed in claim 32, which was rejected only on the ground of provisional double patenting. Precise basis for this amendment will be found at column 5, lines 7-40, of US patent No. 5,519,063, which is referred to on page 1, line 19, of the specification as filed, and which is now explicitly "incorporated by reference" by the
20 amendment to page 1, lines 19-29, set out on page 2 of the Reply mailed February 28, 2002. For the Examiner's convenience, a copy of the relevant page of U.S. Patent No. 5,519,063 is attached. The amendment is also substantially the same as an amendment made to the parent application and not objected to the Examiner.

25 The amendment to paragraph 00025 brings the specification into conformance with new claims 85, 90, and 101. Basis for the amendment is the same as stated below for those claims.

AMENDMENTS TO THE CLAIMS

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Claims 1-5, 9-12, 20, 37-38, 59-60 and 62-63, all of which were rejected under 35 USC 102 and/or 103, have been canceled. Claim 66, which was objected to, has been canceled. These claims have been canceled in the interests of speedy prosecution and without prejudice to Applicant's right to prosecute the same or similar claims in one or more continuing applications.

A number of claims which were not rejected under 35 USC 102 and/or 103 have also been canceled, namely claims 47-57 and claims 22-25, 39 and 40 (dependent directly or indirectly on claim 57); claim 62 (dependent on canceled claim 1); and Claim 63 (dependent on canceled claim 20). All of these claims require use of the SCC polymer in specific amounts outside the range of 1-10,000 ppm disclosed in Mueller. The newly cited English-language abstract of French Patent No. 2,131,111 discloses the addition of certain polymethacrylates to lubricants as VI improvers, thickeners and pour point depressants. The French patent itself discloses that the polymethacrylates are used in amount 0.1-10% by weight, based on the weight of lubricating oil (page 3, lines 10-15); and that the polymethacrylate may be derived from one or more straight or branched chain alcohols containing 1-18 carbon atoms, e.g. lauryl methacrylate (page 1, lines 35-page 2, line 5, and page 5, Table 1). There is no disclosure of any polymethacrylate containing hydroxyl groups, or of any cosmetic composition, or of any composition containing water. Claims 47-57, 22-25, 39, 40, 62 and 63 have been canceled because the French Patent appears to raise, with respect to those claims, issues similar to those raised by Mueller with respect to the claims rejected under 35 USC 102/103. Like claims 1-5, 9-12, 20, 37-38, 59-60 and 62-63, claims 47-57, 22-25, 39, 40, 62 and 63 have been canceled in the interests of speedy prosecution and without prejudice to Applicant's right to prosecute the same or similar claims in one or more continuing applications.

Claims 7 and 15, which are independent claims rejected only on the ground of provisional double patenting, have been amended to state, as in the other independent claims, that the SCC polymer is "substantially free from ... (the specified groups)".

Claims 28, 29 and 35 have been amended in minor respects so that there are claims specifically directed to compositions in which the SCC polymer has a crystalline melting point of 40 to 80°C. (basis on page 10, lines 10-12, of the application as filed).

5 Claim 33, which is an independent claim rejected only on the ground of provisional double patenting, has been amended to correct a typographical error and to make it clear that mixtures of oils can be used.

10 Claims 64 and 65, which were dependent on claim 1 and were rejected only on the ground of provisional double patenting, have been rewritten in independent form, incorporating all the limitations of canceled claim 1 except (a) the limitation requiring that the composition is at a temperature which is below T_p and at which the composition, in the absence of the polymer, is liquid, and (b) the limitation that the SCC polymer is present in amount such that it thickens the oil. It is believed to be clear that the omitted
15 limitations (which were added to claim 1 during prosecution in order to help distinguish from Mueller) were not important to the Examiner's decision that claim 64 and 65 should not be rejected under 35 USC 102/103. For example, these limitations are not present in the independent claims which were rejected only on the ground of double patenting, i.e. were not rejected under 35 USC 102/103.

20 New claims 67-72, dependent on claim 64, have been added. The features of these claims are substantially the same as the features of claims 33-36, and find basis on page 9, line 30, to page 10, line 12, and page 6, lines 22-27, of the application as filed.

25 New claims 73-78, dependent on claim 65, have been added. The features of, and basis for, these claims are the same as for claims 67-72.

30 New independent claim 79 has been added. Claim 79 is the same as claim 6, which was rejected only on the ground of provisional double patenting, except that it does not specify a numerical value for the quantity of repeating units containing

hydroxyl groups. Basis is on page 7, lines 18-22, page 8, lines 6-9 and page 9, lines 1-3, of the application as filed.

5 New claims 80-84 are dependent on claim 79. Basis for claim 80 is on page 9, lines 1-3, of the application as filed. Basis for claims 81-84 is the same as for claims 67-72.

10 New independent claim 85 has been added. Claim 85 is the same as amended claim 64 except that it recites different specific cosmetic compositions. Basis for these specific cosmetic compositions will be found on page 11, lines 9-10, of the application as filed (" The invention is particularly useful for personal care compositions for example..."), taken in conjunction with the disclosures of the following United States Patents, which are now explicitly incorporated by reference in this application by the amendment to paragraph 0003 in the Reply mailed Feb. 28, 2002 (and which are also
15 explicitly incorporated by reference at page 2, lines 1-7, of the parent application Serial No. 09/398377 as filed, which is itself explicitly incorporated by reference at page 1, lines 5-7, of the present application as filed), in particular the passages specifically noted below.

4,839,166, column 5, lines 10-18

20 "The gelled or thickened cosmetic compositions containing a thickener such as defined above may be employed as a shampoo, after-shampoo compositions, products for rinsing to be applied before after shampooing, before or after dyeing or bleaching, before or after permanent-waving or hair straightening, as a hair-setting or blow-drying composition, as a
25 restructuring composition, or as a support for permanent-waving or for dyeing or bleaching hair."

5,192,462, column 6, lines 18-24

30 " Topical preparations, for example, shampoos, eye makeup formulations, cream rinses, lipsticks, lotions, sunscreens, gels, cosmetics in general, household cleaning agents, cosmetic emulsions or cosmetic gels, hairdressing preparations, foam baths and the like. "

5,247,121, column 1, lines 22-24

"... a large number of cosmetic compositions particularly nail varnish."

Column 7, lines 47-49

"... various formulations... such as for example water-in-oil emulsions, oil-in-water emulsions, sticks, milks etc."

5,736,125, column 5, lines 1-8

"Cosmetic compositions, as used herein, is intended to include oil-based cosmetic compositions, including, but not limited to, products for the care and hydration of the face and/or body, including the hands, pretanning lotions, sunscreens, suntan lotions, after-sun lotions, make-up removers, lipsticks, mascaras, foundations, perfumed gels or oils, hair-treating oils, deodorants, bath oils, and cleansers."

New claims 86-89 are dependent on claim 85. Basis for claims 86-89 is the same as for claims 67-72.

New independent claim 90 has been added. Claim 90 is the same as amended claim 65 except that it recites different additives, i.e. "fragrance" has been replaced by "at least one additive selected from sun screen agents, colorants, pigments, silicones, deodorants and antiseptic agents".

Basis for these additives will be found on page 11, lines 9-10, of the application as filed ("The invention is particularly useful for personal care compositions for example cosmetics, toiletries, and cleansers ..."), taken in conjunction with the common general knowledge that personal care compositions conventionally contain additives making them suitable for use as cosmetics etc., and the disclosures of the following United States Patents, which are now explicitly incorporated by reference in this application by the amendment to paragraph 0003 in the Reply mailed Feb. 28, 2002 (and which are also explicitly incorporated by reference at page 2, lines 1-7, of the parent application Serial No. 09/398377 as filed, which is itself explicitly incorporated by reference at page 1, lines 5-7, of the present application as filed), in particular the passages specifically noted below.

4,839,166, column 6, lines 20-22

"The compositions according to the invention may contain any other ingredient which is usually employed in cosmetics, such as perfumes, colorants, preservatives, sequestering agents, softeners or silicones."

5 5,192,462, column 12, lines 3-12

"These topical preparations include the essential compounds of a thickening agent, an active ingredient and the balance being water. Suitable active agents for use in topical preparations include sunscreens, moisturizers, film formers, detergents, emulsifiers, antiseptic agents, conditioning agents, deodorant actives, reducing agents for permanent wave products and the like."

10 5,247,121, column 1, lines 38-39

"... a variety of other adjuvants such as, for example, surfactants, polymers, preservatives, colorants, pigments, perfumes and a variety of active compounds."

15 5,318,995 column 4, lines 8-11

"The cosmetic compositions in accordance with the present invention can contain conventional ingredients (active ingredients, perfumes, preservatives, sunscreen agents and the like)".

20 New claims 91-94 are dependent on claim 90. Basis for claims 91-94 is the same as for claims 67-72.

25 New independent claim 95 has been added. Claim 95 is a restricted version of claim 32, the restrictions being that the oil must comprise a silicone oil and the SCC polymer must contain units derived from a monomer containing silicon. Basis for claim 95 is on page 10, lines 24-25, of the application as filed.

30 New claims 96-100 are dependent on claim 95. Basis for claim 96 is on page 10, lines 24-27, of the application as filed. Basis for claims 97-100 is the same as for claims 67-72.

New independent claim 101 has been added. Claim 101 claims a method for treating a substrate selected from human skin, human hair or human nails by applying to the substrate a thickened oil composition comprising an oil and an SCC polymer as defined (the definition of the SCC polymer being the same as in the claims directed to specific cosmetic compositions), thus cleansing, beautifying, promoting the attractiveness of, or altering the appearance of, the substrate. Basis for claim 101 will be found on page 11, lines 9-10, of the application as filed ("The invention is particularly useful for personal care compositions for example cosmetics, toiletries, and cleansers ..."), taken in conjunction with (1) the common general knowledge that personal care and cosmetic compositions are compositions which are, in use, applied to human skin, human hair or human nails in order to cleanse, beautify, promote the attractiveness of, or alter the appearance of, the human skin, hair or nails, (2) the statutory definition of the term "cosmetic composition" in the Food, Drug and Cosmetic Act as a composition intended to be "rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to the human body... for cleansing, beautifying, promoting attractiveness, or altering the appearance" and (3) the disclosures of the following United States Patents, which are now explicitly incorporated by reference in this application by the amendment to paragraph 0003 in the Reply mailed Feb. 28, 2002 (and which are also explicitly incorporated by reference at page 2, lines 1-7, of the parent application Serial No. 09/398377 as filed, which is itself explicitly incorporated by reference at page 1, lines 5-7, of the present application as filed).

4,839,166, column 6, lines 37-41

"The process for the treatment of hair, of the skin and of the nails consists in applying to them compositions such as defined above..."

column 2, lines 56-58

"Another subject of the invention is a process for the treatment of hair or skin making use of this thickener or the composition or containing it."

New claims 102-109 are dependent on claim 101. Basis for claims 102, 103 and 107 is on page 10, lines 14-18, of the application as filed. Basis for claims 104-106 is the same as for claims 67-72. Basis for claim 108 is on page 4, lines 16-18, of the

application as filed. Basis for Claims 110 and 111 is on page 2, line 17-page 3, line 4, of the application as filed.

After making the requested amendments, the independent claims fall into the following categories: --

- (a) Claims 6, 7, 13, 15 and 45, each of which requires that the SCC polymer contains hydroxyl groups;
- (b) Claim 26, which requires that the composition is a water-in-oil emulsion or an oil-in-water emulsion;
- (c) Claims 32 and 95, each of which requires that the oil is of a specified kind;
- (d) Claims 64 and 85, each of which requires that the composition is a specified type of cosmetic composition;
- (e) Claims 65 and 90, each of which requires that the composition contains a specified additive; and
- (f) Claim 101, which is directed to a method of treating a human substrate.

It is believed to be clear that method Claim 101 can properly be added at this stage of prosecution without giving rise to a restriction requirement. Thus, it is believed that examination of all the claims now in the application will not place a serious burden on the Examiner; in particular, it is believed that no additional search will be required, having regard to the fact that the application previously contained a variety of claims directed to cosmetic compositions.

THE OBJECTION AND REJECTIONS

The Objection under 37 CFR 1.75.

Claim 66 has been canceled, thus overcoming the objection.

The Provisional Double Patenting Rejection

A Terminal Disclaimer is filed herewith to overcome the provisional double patenting rejection.

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The Rejections under 35 U.S.C. 102 and 35 U.S.C. 103

Applicants respectfully traverse

(1) the rejection of claims 1-5 , 9-12, 20, 37, 38, 62 and 63 under 35 U.S.C. 102 as anticipated by Mueller (U.S. Patent No. 5,281,329), and

(2) the rejection of claims 1-5, 9-12, 20, 37-38, 59-60, 62 and 63 under 35 U.S.C. 103 as unpatentable over Mueller in view of

insofar as those rejections are applicable to the amended claims. As noted above, all of the rejected claims have been canceled.

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CONCLUSION

It is believed that this application is now in condition for allowance, subject to resolution of the outstanding Petition. If, however, there are any outstanding issues that could usefully be discussed by telephone, the Examiner is asked to call the undersigned.

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Respectfully submitted,



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used, does not permit gelling of the oil; there is decantation and recrystallization of the amphiphilic agent. Also, the rheologic effect of the nonionic amphiphilic agent is not observed when it is used in the presence of another oil thickening system, such as dextrin palmitate or salts of fatty acid and aluminum.

The oils employed alone or in mixture in the compositions obtained in accordance with the invention can be principally:

hydrocarbons, comprising mineral oils such as paraffin oil, petrolatum oil, hydrogenated polyisobutylene such as that sold by Nippon Oil under the mark "PAR-LEAM", branched hydrocarbons such as those sold under the designation "ISOPAR";

triglycerides, in particular vegetable oils, such as turnsol oil, sesame oil, colza oil, sweet almond oil, calphylum, palm oil, avocado oil, jojoba oil, olive oil, ricin oil, or cereal germ oils such as wheat germ oil;

various oily esters derived from long chain acid and/or alcohol, such as Purcellin oil, isopropyl myristate, butyl myristate, cetyl myristate, isopropyl palmitate, butyl palmitate, 2-ethylhexyl palmitate, isopropyl stearate, butyl stearate, octyl stearate, hexadecyl stearate, isocetyl stearate, decyl olcate, hexyl laurate, propylene glycol dicaprylate, di-isopropyl adipate and mixtures of C_{12} and C_{15} benzoic esters sold under the designation "FINSOLV TN" by Witco, etc;

animal oils such as perhydrosqualene;

silicone oils such as dimethylpolysiloxanes, phenyldimethicones, cyclomethicones, alkyl dimethicones, etc;

long chain alcohols such as oleic alcohol, linoleic alcohol, linolenic alcohol, isostearyl alcohol or octyl-dodecanol;

esters derived from lanolic acid such as isopropyl or isocetyl lanolate;

acetyl glycerides, the octanoates and decanoates of alcohols or polyalcohols (principally glycol or glycerol), and the ricinoleates of alcohols or polyalcohols, for example cetyl ricinoleate.

There can be incorporated with the oils, various lipophilic substances called actives, beneficial for the skin, such as tocopherol and its esters, fatty esters of ascorbic acid, 18-betaglycyrrhetic acid, ceramides, ultraviolet absorbing filter substances, antioxidants, etc.

One of the characteristics of the thickening copolymers used in accordance with the invention is that they are soluble in oils generally employed in cosmetic compositions, with the exception of certain silicone oils employed alone.

Preferably, the silicone oils and vegetable oils rich in triglycerides are used in admixture with at least 10 percent of another oil (principally a mineral oil or an ester of a fatty acid or fatty alcohol).

The invention also relates to a cosmetic composition comprising a thick oily phase due to the combination of two copolymers such as defined previously.

The invention also relates to a composition thus thickened containing, moreover, a rheologic corrector agent such as defined above.

The compositions according to the invention constitute, principally, anhydrous compositions (anhydrous oils, sticks or gels), gelled oils, or even water-in-oil or oil-in-water emulsions.

The compositions of the invention constitute, for example, makeup remover oils, lip rouge, anhydrous mascaras, perfumed gels or oils, capillary treating oils (anti-hair loss, antipellucular, defrizzing, etc.), pre-bronzing gels or

oils, solar gels or oils, solar sticks, deodorant sticks, oily deodorant gels, aromatic oily gels for the care of the mouth (with or without bacteriacides), foaming oils for the hair or bath, and complexion foundations.

The following nonlimiting examples illustrate the invention.

EXAMPLES OF PREPARATION

Example 1

Synthesis of copolymers by solution polymerization General method:

In a 500 ml reactor fitted with a central mechanical stirrer, a thermometer, a condenser and a nitrogen lead-in tube, there are successively added, the monomers, solvent or mixture of solvents and finally, the polymerization initiator. The mixture is stirred at ambient temperature to obtain a homogeneous solution. Nitrogen is bubbled into the reaction which is then heated to the desired reaction temperature; the elevation of the temperature is accomplished in 30 minutes. There are then maintained stirring of the reaction mixture, the introduction of nitrogen and the selected reaction temperature for 10 hours. The temperature of reaction medium is then lowered to ambient temperature and the polymer is purified by precipitation in a nonsolvent of the product formed but a good solvent for the remainder of the nonreacted monomers.

The polymer is then oven dried under a vacuum at a temperature lower than or equal to 80° C. until a constant weight is achieved.

The monomers employed are designated by the following abbreviations:

LAUA: lauryl acrylate

MAA: methacrylic acid

SMA: stearyl methacrylate

AA: acrylic acid

DAMEMA: Dimethylaminoethyl methacrylate

DAEA: diethylaminoethyl acrylate

NVP: N-vinyl pyrrolidone

AM: acrylamide

EHMA: ethyl hexyl metacrylate

NDAM: N-dodecylacrylamide

NTBA: N-t. butyl acrylamide

NTOA: N-t. octyl acrylamide

ITAN: itaconic anhydride

DAAM: diacetone acrylamide

The initiator employed is azo bis-isobutyronitrile at a concentration of 0.5 to 0.7 percent.

The solvents used are mixtures of toluene and ethanol except for Example 13 (tetrahydrofuran).

The precipitating agent is ethanol, except for Examples 10-12, methanol in Examples 10 and 12; and a 50:50 mixture of methanol and water in Example 11.

The reaction temperature is 60° C. (Examples 1-3) or 65° C. (Examples 4-14).

The results are set forth in Table I below.

The indication T:x% means that there is employed, as solvent, a toluene-ethanol mixture containing x% of toluene, and then (100-x)% of ethanol